# Materials Engineers

# Katherine Best

**School Address:**
203D Sharp Hall
1999 Burdett Avenue
Troy, NY 12180

**Permanent Address:**
14 Pine Hill Bend
Ballston Lake, NY 12019

**Education**

Rensselaer Polytechnic Institute
Year: Sophomore
Major: Materials Engineering
GPA: 4.0/4.0

**Activities**

*Cross-country/Indoor Track Manager* Fall 2002-Present
- assist the coaches with practices and meets

*The Polytechnic, School Newspaper* 2002-Present
- staff reporter, write weekly sports articles

*Society of Women Engineers* 2002-Present
- active member, help out with Girl Scouting events, enjoy attending meetings and SWE sponsored functions

*Women at Rensselaer Mentor Program* 2003-Present
- currently a mentor for two freshmen students

**Work Experience**

*Undergraduate Research* Summer 2003-Present
- Magnetic alignment of Liquid Crystalline Epoxy/Nanotube Composites
- Mixed samples, modified nanotubes, machined specimens, mechanical/thermal analysis

*Shenendehowa Public Library* 2000-Present
- worked part time during high school
- presently working during summers and holidays

**Recognition**

Rensselaer Medalist
IBM Scholars Award
Dean's List
Bechtel Scholarship

**Computer Skills**

Solid Works, C++, Maple, Microsoft Word/Excel, Minitab

**Laboratory Skills**

Tensile testing, SEM

**Interests**

Geology, Running, Church Youth Programs

# Joanna R. Lynch

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**Permanent Address**
2032 Swans Neck Way
Reston, VA 20191
(703) 716-4757
U.S. Citizen

**OBJECTIVE**

To obtain a full time position in materials engineering, where I can challenge myself with a career in an innovative, technological company.

**EDUCATION**

**Rensselaer Polytechnic Institute**, Troy, NY
*Master of Science in Materials Engineering*
- Expected Graduation December 2003
- GPA 3.70/4.00
- Research Assistantship

*Bachelor of Science in Materials Engineering*
*Psychology Minor in Brain and Behavior*
- Graduated May 2002
- GPA 3.11/4.00
- Emily Roebling Scholar; Rensselaer Alumni Scholar; Dean's List

**RESEARCH**

**Graduate**
*Glancing angle deposition (GLAD) of nitride thin films study*
- Constructed a GLAD ultra high vacuum magnetron sputter deposition system
- Deposited GLAD single crystal chromium nitride thin films
- Conducting analysis via atomic force microscopy (AFM), cross-sectional transmission electron microscopy (XTEM)

**Undergraduate**
*Thin film multi-sensor application study-senior design project*
*Lockheed Martin-corporate sponsor*
- Engaged in sputter deposition
- Concentrated on procedure and deposition conditions
- Conducted analysis via scanning electron microscopy (SEM), resistance measurements

**CO-OP**
May - August 00, 01

**Benet Laboratories at Watervliet Arsenal**, Student Trainee, Watervliet, NY
*Fatigue and Fracture Analysis-Coating Characterization Team*
- Assisted project leaders
- Completed literature searches
- Performed the following tests:
  - Dilatometry
  - Differential scanning calorimetry (DSC)
  - Adhesion
  - Vacuum heat treatment
- Compiled, prepared, and charted research findings

**PUBLICATION**

**Benet Laboratories Technical Report**
*Vacuum Heat Treatment & Adhesion Characterization of a Sputtered Ta Coating*

**CLASSES**

**Graduate**

*Current:* Materials Characterization, Principles of Crystallography and X-Ray Diffraction

*Past:* Diffusion in Solids, Fracture of Solids, Advanced Device Processing, Surface Phenomena, Introduction to Thin Film Deposition, Integrated Circuit Fabrication Laboratory

**Undergraduate**

*Past:* Applications of Materials Engineering; Synthesis & Processes II, Corrosion, Design of Materials Engineering, Semiconductor Materials, Synthesis & Processes I, Kinetics of Materials, Thermodynamics of Materials, Properties of Materials I & II, Structure of Materials

**COMPUTER SKILLS**

Powerpoint, Minitab, Maple, Excel, Word, Dreamweaver, HTML, Photoshop, Origin

# LYNN REIS


**PERMANENT ADDRESS:**
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Phoenixville, PA 19460

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**PHONE:** (484) 302-1196

**CAMPUS ADDRESS:**
33 Colvin Circle
Troy, NY 12180


**OBJECTIVE**: To obtain a summer internship that will expose me to materials science and engineering in an industry setting while utilizing my technical and organizational skills for the benefit of the company.

**EDUCATION**:

**Rensselaer Polytechnic Institute**, Troy, NY — Graduation 2006

- Bachelors of Science, Materials Science and Engineering, GPA 4.0/4.0
- Minor in Management and Technology
- Coursework includes: Introduction to Materials, Introduction to Engineering Analysis, CAD, Structure of Materials, Introduction to Management, Computer Science 1, Thermal and Fluids Engineering, Thermodynamics of Materials, Properties of Materials 1, Accounting for Decision Making, Modeling and Analysis of Uncertainty

**EXPERIENCE**:

**Rensselaer Polytechnic Institute**, Troy, NY — Summer 2003
**Research Assistant**

- Conducted experiments to characterize a synthesis process for making iron oxide nanoparticles, paying particular attention to structural and magnetic properties
- Analyzed data to draw meaningful conclusions on correlations between variables in the synthesis procedure and observed experimental results
- Presented findings to a group of research students and professors and wrote a paper on the work performed

**S.G. Raven & Associates**, Newtown Square, PA — Nov. 2000 – Present
**Administrative Assistant to an Actuary**

- Prepare valuation reports, asset reports, and pension plan document binders to send to clients
- Complete government forms and schedules for the pension plans
- Organize office through maintenance of Access databases, Excel spreadsheets, and office filing

**STUDENT PROJECTS**:

- CAD – Utilizing Solid Works, modeled the components and assembly of an electric pencil sharpener
- Physics – Explored the physics of thunderstorms, including lightning formation, thunder, and sprites
- Governor's School – Explored the mathematics of social choice and completed mathematical proofs to support conclusions
- Introduction to Management – Worked in a group to produce an analysis for a future strategy for an energy company and defended the conclusions in front of corporate executives

**COMPUTER AND EQUIPMENT SKILLS**:

- Experienced with Microsoft Word, Excel, PowerPoint, and Access, C++, Solid Works
- Trained in X-Ray Diffraction, Vibrating Sample Magnetometer, and Scanning Electron Microscope

**ACTIVITIES, INTERESTS AND HONORS**:

- Activities include drawing and painting, running, hiking, and backpacking, Habitat for Humanity, Rensselaer Outing Club, Society of Women Engineers (Secretary)
- Participation in Lockheed Martin Leadership Series
- Honors include Rensselaer Medal winner, National Merit Finalist, 2002 Valedictorian Great Valley High School, AP Scholar with Distinction
- Attended Pennsylvania Governor's School for the Sciences at Carnegie Mellon University
- Attended PROMYS, a math program at Boston University

# Kathleen E. Sinnamon

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**Campus Address:** 1860 Powell Campus Center, Alfred, NY 14802
**Permanent Address**: 23 Lydall Street, Manchester, CT 06040

## EDUCATION

***Bachelor of Science*** candidate, May 2004, Alfred University, Alfred, NY
***Majors:*** *Ceramics Engineering; Materials Science and Engineering,* ***GPA:*** *3.91/4.00*
***Thesis:*** Metallic Brazing of Ceramics ($V_2O_5$-Ag and CuO-Ag alloys; Y-TZP and Mg-TZP ceramics)

## TECHNICAL SKILLS

***Laboratory Skills:*** Batching; Melting and Annealing Glass; Fiber Drawing; Slip Casting; Wet and Dry Pressing; Slurry Preparation; Rheology Adjustments; Spray Drying; SEM Operation; EDS analysis; X-ray Analysis; Optical Microscopy; Mechanical Strength Testing (Instron® operation); Sessile Drop Testing; Electrical Property Measurement; Cut-section Sample Preparation; Ftir; DSC/DTS; Prototype Development; Jenkins Press Operation; Polymer Degradation
***Computer:*** Microsoft Office (including Excel); Lotus Suite; HTML; Microsoft Photoshop; Adobe®; Java; Maple®; Mini-tab®; Stat Design Expert®, Windows® 95, 98, 2000, XP

## ACCOMPLISHMENTS

***Awards:*** National Merit Scholar (2000), Dean's List (2000-present), CRC Press Freshman Chemistry Achievement Award (2001), Alpha Lambda Delta, Phi Kappa Phi, Tau Beta Pi, Girl Scout Gold Award
***Activities***: AU Sci-Fi Club, Alfred University Research Fellows, Society of Women Engineers (Co-President), AU Folk Dancing, AU Swing, Student Senate Representative (2001-present), Girl Scouts

## EMPLOYMENT

**Johnson & Johnson, Skillman, NJ .** *Research, Development & Engineering Intern,* 6/03-8/03

- Completed preliminary optimization of a new digital tampon wrapper prototype for potential launch in Germany
- Converted consumer needs into improved product features
- Developed and implemented in-vitro testing for color association, dimensional functionality and fluid masking
- Created and fielded an in-house consumer study to determine material and size preferences

**School of Ceramics, Alfred University, Alfred, NY.** *Teaching Assistant,* 1/03-present

- Assisted with capstone (Engineering Operations), and fundamental (Materials Science) courses
- Lead evening engineering problem-solving sessions
- Help students develop reasoning skills that allow them solve real world problems
- Adapt to different learning styles and reinforced concepts using creative methods
- Significantly improved tutees' performance in classes and understanding of material

**Saint-Gobain Advanced Ceramics, East Granby, CT.** *Research and Development Intern,* 5/01-8/01

- Conducted and documented a three-month study on the reduction of material defects
- Designed and executed experiments to isolate and eliminate sources of defects in all stages of production
- Worked with plant personnel to solve contamination issues without interrupting production
- Found solutions that eradicated 90% of the major contaminant

**Hall of Glass Science, Alfred University, Alfred, NY.** *Undergraduate Research Fellow,* 10/00-12/01

- Conducted research in the area of alkali borosilicate glasses to be used in protein separation
- Investigated effects of calcium and sodium carbonate ratios in silica-based bioreabsorbable glasses
- Batched, melted, drew and analyzed glass fibers of varying compositions